

## Abstract of the Disclosure

**[0085]** I/Q MIMO Detection for Single Antenna Interference Cancellation

**[0086]** An I/Q MIMO detection framework is a practical means to realize interference cancellation (IC) gains when GMSK, 8PSK signals interfere with each other in synchronous GSM/EDGE networks, thereby providing coverage, capacity, and throughput gain. Further, the presented algorithm applies to a high data rate system concept, in which multiple signals are transmitted from the base station (BTS) through multiple antennas.